IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applicant   :   Mark Gilmore Mears et al.

Serial No.   :   10/578,828

Filed   :   May 9, 2006

For   :   METHOD AND APPARATUS FOR PERFORMING

                  SELECTABLE CHANNEL SEARCH

Examiner   :   Pinkal R. Chokshi

Art Unit   :   2425

APPEAL BRIEF

May It Please The Honorable Board:

This is Appellants' Brief on Appeal from the final rejection of claims 1 – 18. Please charge the $330.00 fee for filing this Brief to Deposit Account No. 07-0832. Appellants waive an Oral Hearing for this appeal.

Please charge any additional fee or credit overpayment to the above-indicated Deposit Account. Enclosed is a single copy of the Brief.

I.   REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/578,828 is the Assignee of record:

Thomson Consumer Electronics Inc.

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Indianapolis IN 46290

II.   RELATED APPEALS AND INTERFERENCES

There are currently, and have been, no related Appeals or Interferences regarding

Application Serial No. 10/578,828 known to the undersigned attorney.

III.   STATUS OF THE CLAIMS

Claims 1-18 are rejected and the rejection of claims 1 - 18 is appealed.

IV.   STATUS OF AMENDMENTS

All amendments were entered and are reflected in the claims included in Appendix I.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 claims a method for enabling a channel search in a signal

processing apparatus comprising the steps of: generating a signal suitable for coupling to a

display device for displaying an on-screen menu (page 4, line 24, page 6, lines 28-33, and

Figure 3, element 320); enabling a user to select a plurality of options for said channel

search responsive to said on-screen menu (page 4, lines 24-25); and wherein said plurality

of options includes a first option to individually select which of a plurality of inputs to said

signal processing apparatus are to be searched (page 4, lines 26-27, and Figure 3, element

330) and a second option to individually select which of a plurality of types of channels are

to be searched. (page 4, lines 27-28, and Figure 3, element 340)

Independent claim 7 claims an apparatus for enabling a channel search, comprising:

memory means for storing data used to generate a signal suitable for coupling to a display

device for displaying an on-screen menu (page 4, lines 32-34, page 6, lines 28-33, and

Figure 2, element 25); processing means for enabling a user to select a plurality of options

for said channel search responsive to said on-screen menu (page 4, lines 31-34, and Figure 2, element 24); and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched (page 4, line 34 through page 5, line 2) and a second option to individually select which of a plurality of types of channels are to be searched. (page 5, lines 2-3)

Independent claim 13 claims a video signal processor, comprising: a memory operative to store data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu (page 5, lines 7-8, and Figure 2, element 25); a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu (page 5, lines 8-10, and Figure 2, element 24); and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched (page 5, lines 10-13) and a second option to individually select which of a plurality of types of channels are to be searched. (page 5, lines 10-13)

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner has rejected claims 1 – 18 as being unpatentable under 35 U.S.C. §103(a) over WO Publication 01/06771 A1 to Johnson et al. (hereinafter referred to as "Johnson"), in view of US PG Pub 2005/0086693 A1 to Shintani.

VII. ARGUMENT

Rejection of Claims 1 – 18 under 35 USC 103(a)
over WO Publication 01/06771 A1 to Johnson et al.,
in view of US PG Pub 2005/0086693 A1 to Shintani

CLAIMS 1-6

The invention, as recited in claims 1-6, is not anticipated by Johnson and Shintani, as asserted by the Examiner. In the present case, the Examiner has failed to show that Johnson and Shintani teach or suggest all of the limitations of independent claim 1. Specifically, it is respectfully asserted that neither Johnson nor Shintani, alone or in combination, disclose generating an on-screen menu "wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 1.

A problem addressed by the subject application is the length of time required by a television signal receiver to perform a channel search including scanning all possible frequencies and modulation types for all possible channels on all available inputs. The time required can be particularly long with television signal receivers capable of receiving and decoding both analog channels (e.g., NTSC, PAL, SECAM, etc.) and digital channels (e.g., ATSC, QAM, VSB, etc.).

To solve this problem, the subject application discloses a method for reducing the search time by providing users with flexible channel search options such that they may select only those search options they desire. As described in claim 1, an on-screen menu is provided enabling a user to select a plurality of options for the channel search. The options

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include a first option to individually select which of a plurality of inputs to the signal

processing apparatus are to be searched and a second option to individually select which of

a plurality of types of channels are to be searched. Thus, the user is able to include in the

search only those inputs and only those types of channels that are relevant in the user's

environment, thereby potentially vastly reducing the time required for channel scanning.

Furthermore, the user is able to search applicable inputs and channel types with a single

search.

In contrast, both Johnson and Shintani require the user to select one input and, in

Shintani, one signal type. Thus, if the user wants to search multiple inputs for different

signal types, the user must perform the searches one input at a time. Providing only one of

the two sets of options (i.e., either input selection or channel-type selection, but not both)

for a search provides only a fraction of the time savings, as well as less convenience to the

user, and would therefore not provide all of the advantages of the present invention as

described in claim 1.

More specifically, Johnson teaches a system where "a channel search

program/routine preferably of a graphical user interface (GUI) e.g., a television

programming or set-up menu, is adapted to allow the user to accomplish a channel search

on only the currently selected signal input and/or enter information regarding the existence

of various channels." (page 3, lines 6-9) Johnson further teaches that "in order to further

reduce the time necessary to perform channel detection, the various signal inputs 16, 26, 28,

and 30 may only accept certain signal sources. For example, signal input 16 may only

accept DBS/Set-top box type television signals and thus only those channels that are typical

of DBS/Set-top box signals. Signal inputs 28 and 30 may only accept terrestrial or off-air

television signals (VHF/UHF) that only carry characteristic channels..." (page 6, lines 12-

19) "Upon selection of a channel scan by the user, preferably within the screen of a GUI, a

channel search is started on the channels characteristic of the signal input." (page 7, lines 8-

10)

Thus, in Johnson, the user may select a signal input for channel search, which may

only receive signals with certain characteristics, and once the channel search is started for a

particular input, only signal types characteristic of that particular input are searched for.

Johnson does not teach or suggest that the user may select which of a plurality of types of

channels are to be searched, or that multiple inputs may be individually selected for search.

Therefore, Johnson fails to disclose generating an on-screen menu "wherein said plurality of

options includes a first option to individually select which of a plurality of inputs to said

signal processing apparatus are to be searched and a second option to individually select

which of a plurality of types of channels are to be searched," as described in independent

claim 1.

Shintani teaches that "a method for use in generating a television channel map can

select a first input of a plurality of inputs, select a first single modulation scheme of a

plurality modulation schemes on the first input, tune in a plurality of channels for the

identified single modulation scheme, determine if a broadcast is received on each of the

channels, record channels that are determined to receive broadcasts in a channel map

according to the plurality of tuned channels for the identified single modulation scheme,

and not perform a full auto-program." (Shintani paragraph 0006)

While Shintani teaches that "a user can manually activate the enhanced auto-

programming and select one or more of the specific modulation schemes to evaluate."

(Shintani, paragraph 0033), Shintani does not disclose providing options for both individual control over which inputs are scanned and which channel types are scanned. The system of Shintani would require the user to at least initiate multiple scans, one for each input to be scanned, thereby failing to provide much of the benefit of the presently claimed invention. Thus, Shintani, like Johnson, fails to disclose generating an on-screen menu "wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 1.

Even in combination, Johnson and Shintani fail to teach or suggest a menu where a user can select from a plurality of inputs and a plurality of signal types to specify and manage the time required for a single search. Only the selection of a single input per search is disclosed. Thus, it is submitted that the invention recited in claim 1 is non-obvious in light of the cited references and the "knowledge of one skilled in the art" at the time of the invention.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Johnson or Shintani, alone or in combination, that makes the present invention as claimed in claim 1 unpatentable. Since dependent claims 2-6 are dependent from allowable independent claim 1, it is submitted that they too are allowable for at least the same reasons that independent claim 1 is allowable.

CLAIMS 7-12

The invention, as recited in claims 7-12, is not anticipated by Johnson and Shintani, as asserted by the Examiner. In the present case, the Examiner has failed to show that Johnson and Shintani teach or suggest all of the limitations of independent claim 7. Specifically, it is respectfully asserted that neither Johnson nor Shintani, alone or in combination, disclose "processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 7.

The present invention, as recited in claim 7, describes an apparatus for enabling a channel search, comprising: memory means for storing data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu; processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

As described above with respect to claims 1-6, Shintani and Johnson fail to disclose generating an on-screen menu "wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 1.

In failing to disclose options for individual selection of inputs and channel types, Johnson and Shintani also necessarily fail to disclose a processing means enabling such selections. Thus, both Shintani and Johnson fail to disclose "processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 7.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Johnson or Shintani, alone or in combination, that makes the present invention as claimed in claim 7 unpatentable. Since dependent claims 8-12 are dependent from allowable independent claim 7, it is submitted that they too are allowable for at least the same reasons that independent claim 7 is allowable.

CLAIMS 13-18

The invention, as recited in claims 13-18, is not anticipated by Johnson and Shintani, as asserted by the Examiner. In the present case, the Examiner has failed to show that Johnson and Shintani teach or suggest all of the limitations of independent claim 13. Specifically, it is respectfully asserted that neither Johnson nor Shintani, alone or in combination, disclose "a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 13.

The present invention, as recited in claim 13, describes a video signal processor, comprising: a memory operative to store data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu; a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

As described above with respect to claims 1-6, Shintani and Johnson fail to disclose generating an on-screen menu "wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as described in independent claim 1.

In failing to disclose options for individual selection of inputs and channel types,

Johnson and Shintani also necessarily fail to disclose a controller enabling such selections.

Thus, both Shintani and Johnson fail to disclose "a controller operative to enable a user to

select a plurality of options for a channel search responsive to said on-screen menu; and

wherein said plurality of options includes a first option to individually select which of a

plurality of inputs to said video signal processor are to be searched and a second option to

individually select which of a plurality of types of channels are to be searched," as

described in independent claim 13.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112

enabling disclosure provided by Johnson or Shintani, alone or in combination, that makes

the present invention as claimed in claim 13 unpatentable. Since dependent claims 14-18

are dependent from allowable independent claim 13, it is submitted that they too are

allowable for at least the same reasons that independent claim 13 is allowable.

VIII   CONCLUSION (not required - optional)

Johnson and Shintani fail to teach or disclose all of the limitations of the independent claims. Specifically, Johnson and Shintani fail to teach generating an on-screen menu "wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched," as is described in the present claims. Accordingly, it is respectfully submitted that the rejection of Claims 1-18 should be reversed.

Respectfully submitted,

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APPENDIX I - APPEALED CLAIMS

1. (Previously Presented) A method for enabling a channel search in a signal processing apparatus comprising the steps of:

    generating a signal suitable for coupling to a display device for displaying an on-screen menu;

    enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and

    wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

2. (Previously Presented) The method of claim 1, wherein said plurality of inputs includes a cable input and an antenna input.

3. (Previously Presented) The method of claim 1, wherein said plurality of types of channels includes digital modulation channels and analog modulation channels.

4. (Previously Presented) The method of claim 1, wherein said plurality of options further includes a third option to detect a type of signal received via least one of said plurality of inputs.

5. (Previously Presented) The method of claim 4, wherein said plurality of options further includes a fourth option to search previously found channels.

6. (Previously Presented) The method of claim 5, further comprised of performing said channel search according to said plurality of options selected by said user.

7.   (Previously Presented) An apparatus for enabling a channel search, comprising:

memory means for storing data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu;

processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and

wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

8.   (Previously Presented) The apparatus of claim 7, wherein said plurality of inputs includes a cable input and an antenna input.

9.   (Previously Presented) The apparatus of claim 7, wherein said plurality of types of channels includes digital modulation channels and analog modulation channels.

10.   (Previously Presented) The apparatus of claim 7, wherein said plurality of options further includes a third option to detect a type of signal received via least one of said plurality of inputs.

11.   (Previously Presented) The apparatus of claim 10, wherein said plurality of options further includes a fourth option to search previously found channels.

12.   (Previously Presented) The apparatus of claim 11, wherein said processing means enables performance of said channel search according to said plurality of options selected by said user.

13.   (Previously Presented) A video signal processor, comprising:

a memory operative to store data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu;

a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and

wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

14.   (Previously Presented) The video signal processor of claim 13, wherein said plurality of inputs includes a cable input and an antenna input.

15.   (Previously Presented) The video signal processor of claim 13, wherein said plurality of types of channels includes digital modulation channels and analog modulation channels.

16.   (Previously Presented) The video signal processor of claim 13, wherein said plurality of options further includes a third option to detect a type of signal received via least one of said plurality of inputs.

17.   (Previously Presented) The video signal processor of claim 16, wherein said plurality of options further includes a fourth option to search previously found channels.

18.   (Previously Presented) The video signal processor of claim 17, wherein said controller is further operative to enable performance of said channel search according to said plurality of options selected by said user.